

# **[ ADAPTIVE CRUISE CONTROL SYSTEM USING SHARED VEHICLE NETWORK DATA ]**

## **Abstract of Disclosure**

A method of adaptively controlling the speed of a reference vehicle having a controller is provided. The method includes detecting a target vehicle, setting a reference vehicle headway distance indicative of a desired separation between the reference vehicle and the target vehicle, receiving at the reference vehicle, target vehicle data from the target vehicle, and modifying the reference vehicle headway distance as a function of the target vehicle data. The target vehicle data includes a braking capability value ( $BC_T$ ) of the target vehicle. A braking capability value ( $BC_R$ ) for the reference vehicle is also determined. If the  $BC_R$  or  $BC_T$  indicates a less than optimum braking capability for the reference or target vehicles, the reference vehicle headway distance is increased. In this way, the relative braking capability of the two vehicles is used to modify the reference vehicle headway distance during adaptive cruise control operation.